

Appl. No. 10/014,273
Response Dated Jan. 9, 2006
Reply to Notice of Non-Compliant Amd of Dec. 9, 2005

Amendments to the Specification:

In the title, please insert "IP" before "ADDRESS ALLOCATION FOR MOBILE TERMINALS" on both page 1 and page 10.

Please replace the paragraph beginning at page 2, line 29 with the following amended paragraph:

FIG. 1 is a block diagram of a mobile station access for internet protocol address allocation from an external packet data network 40. As mobile station is used herein, it includes a cellular telephone, personal digital assistant, computer laptop, pager or other "intelligent" device. Mobile station 10 is coupled to tower 15 of RAN ~~15~~ 20 (radio access network). This coupling is in the form of an over-the-air cellular link in the example shown in FIG. 1, ~~the link is a cellular one.~~ Tower 15 and RAN 20 form the basis of the cellular network with which mobile station interfaces. Although a terrestrial cellular network is shown, a satellite communication network or other IPV6 network, such as a wireless LAN, is a suitable equivalent for RAN 20.

Please replace the paragraph beginning at page 4, line 4 with the following amended paragraph:

Responsive to the advertise message 54 from the external network PDN 40, the GGSN 35 sends a DHCP request message 55 to the DHCP server 41 of PDN 40 requesting an IPv6 address. Packet data network 40 then responds with an IPv6 address assigned to mobile station 10. Next, GGSN 35 performs a duplicate address detection (DAD) 57 procedure to validate the uniqueness of the IPv6 address.

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Please replace the paragraph beginning at page 4, line 12 with the following amended paragraph:

When GGSN 35 determines the address to be unique, the GGSN 35 transmits the interface identifier portion of the IPv6 address back to the mobile station 10 through SGSN 25. GGSN 35 responds to the initial PDP context request 52 with a PDP context response message 58 which is transmitted to SGSN 25. SGSN 25 then transmits a context activation response message 59 to the mobile station 10 via the radio access network (RAN) 20.

Please replace the paragraph beginning at page 4, line 20 with the following amended paragraph:

After sending the PDP context ~~resonse~~ response message 58, the GGSN 35 also transmits a router advertisement message 60 to the SGSN 25. Router advertisement message 60 includes the network prefix obtained from the IPv6 address assigned to mobile station 10 by the external PDN 40. The mobile network comprising RAN 20, SGSN 25 and GGSN 35 does not manage or control this particular prefix.

Please replace the paragraph beginning at page 4, line 28 with the following amended paragraph:

Next, SGSN 25 transmits the router advertisement 61 including the PDN network prefix message ~~61~~ to mobile station 10. When mobile station 10 receives the router advertisement message 61 from SGSN 25, mobile station 10 performs a stateless autoconfiguration process 62. As a result, mobile station 10 creates the same IPv6 address as was assigned by PDN 40. Mobile station 10 created this same IPv6 address without the need for duplicate address detection, ~~62~~ 57, since GGSN 35 has previously determined the uniqueness of the address. As a result, additional signaling over the air between the SGSN and mobile station 10 is alleviated.

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Please replace the paragraph beginning at page 5, line 4 with the following amended paragraph:

This allocation address procedure has the benefit of requiring mobile station 10 to support only one method of obtaining an IPv6 address, regardless of the network which allocates the address. Mobile station 10 is not required to support an additional procedure for stateful address autoconfiguration such as DHCP. Further since the GGSN 35 performs the duplicate address detection process 57, the mobile device(s) 10 do not need to verify the uniqueness of the address and additional over the air signaling is saved as a result. Lastly, since the duplicate address detection procedures are not performed by the mobile device, there is no need to broadcast neighbor solicitation messages to other mobile stations in order to verify the uniqueness of the IPv6 address. As a result, the mobile device's design is much simpler and considerable over the air message transmission time is saved, thereby greatly increasing the battery life of the mobile station.